

**ABSTRACT OF THE DISCLOSURE**

A MPEG-2 decoder receives an MPEG-2 video stream containing discrete cosine transform (DCT) blocks and generates linear contrast enhanced DCT blocks applied to an inverse DCT processor contained therein. Preferably, the MPEG-2 decoder includes a linear contrast enhancement processor receiving the DCT blocks and generating the linear contrast enhanced DCT blocks, and the inverse DCT processor coupled to the linear contrast enhancement processor. Additionally, the MPEG-2 decoder can include a microprocessor which controls the linear contrast enhancement processor and the inverse DCT processor. A method and a memory containing computer readable instructions permitting the microprocessor to control the MPEG-2 decoder are also described.